AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims

Claims 1-40. (Cancelled)

Claim 41. (Currently amended) An electronic controlled method for combinatorial synthesis of a biopolymer, comprising the steps of:

forming a plurality of reaction locations on a substrate, each reaction location being individually electronically addressable;

disposing blocking groups ~~forming an attachment layer~~ upon each reaction location;

placing said reaction locations in contact with a solution containing ~~a~~ charged deblocking groups~~monomer A~~;

selectively biasing those location at which reaction A is to occur at an opposite charge to the charged deblocking group ~~monomer A~~, and biasing those locations at which no reaction A is to occur the same charge as the charged deblocking group, whereby the deblocking group is removed from those locations at which reaction A is to occur~~monomer A~~;

~~concentrating and~~ reacting monomer A on the specific A locations, the monomer A further including a blocking group;

removing solution containing unreacted monomer A;

placing said reaction locations in contact with a solution containing ~~a~~ charged deblocking groups~~monomer B~~;

selectively biasing those locations for which reaction B is to occur at the opposite charge of the charged deblocking groups ~~monomer B~~, and biasing those locations at which no reaction B is to occur the same charge as the charged deblocking group~~monomer B~~, whereby the

blocking groups are removed from those locations at which reaction B is to occur;

~~concentrating and~~ reacting monomer B on the specific B locations, the monomer B further including a blocking group; and

repeating the process with monomer-A, monomer-B, to monomer-N, for n-number of times until all biopolymer sequences are complete.

Claim 42. (Currently amended) A method for producing a compliment of ~~replicating~~ a self-addressable electronic device addressed with specific DNA sequences, comprising the steps of:

hybridizing the complementary sequences to the specific DNA sequences addressed on a master self-addressable electronic device, the complementary sequences including a bonding entity;

aligning unaddressed locations on a recipient self-addressable electronic device with the addressed locations on said master device; and

biasing the locations on said master device repulsive to the complementary sequences ~~negative~~ and the locations on said recipient device attractive to the complementary sequences~~positive~~, and transporting the complementary sequences to said recipient device and covalently attaching them to the recipient devices.

Claim 43. (Previously presented) The method for replicating patterned sequences of claim 42, further comprising denaturing the complementary sequences from the master template.

Claims 49-51. (Cancelled)

Claim 52. (New) The methods of claim 41 for electronically controlled combinatorial synthesis of a biopolymer wherein at least one biopolymer includes an oligonucleotide.

Claim 53. (New) The method of claim 52 for electronically controlling, combinatorial synthesis of a biopolymer wherein the oligonucleotide is a deoxyribonucleic acid (DNA).

Claim 54. (New) The method of claim 41 for electronically controlling the combinatorial synthesis of a biopolymer wherein at least one biopolymer includes a peptide.

Claim 55. (New) The method of claim 41 for electronically controlling combinatorial synthesis of a biopolymer wherein at least one biopolymer is a complex polymer.

Claim 56. (New) The method of claim 41 for synthesizing a polymer wherein the charged deblocking group has a net positive charge.

Claim 57. (New) The method of claim 41 for synthesizing a polymer wherein the charged deblocking group has a net negative charge.

Claim 58. (New) The method of claim 41 wherein the reaction locations are arranged in an array.

Claim 59. (New) The method of claim 58 wherein the array is an n x n array.